

AMENDMENTS TO THE CLAIMS:

Please cancel claim 12, without prejudice and amend claim 26, as shown below.

This listing of claims will replace all prior versions and listings of claims in the Application:

Claims 1-12 (canceled)

Claim 13 (previously presented) The process according to claim 26, wherein the substrate is cooled during the process.

Claim 14 (previously presented): The process according to claim 26, wherein at least one layer of amorphous hafnium oxide having a density between 6.4 and 8.1 gm/cm³ is formed.

Claim 15 (previously presented): The process according to claim 26, wherein at least one layer of hafnium oxide having a density lower than 8 gm/cm³ is formed.

Claim 16 (previously presented): The process according to claim 26, wherein a stack of layers is formed.

Claim 17 (previously presented): The process according to claim 16, wherein the stack also includes at least one layer formed of a material having a refractive index different from that of hafnium oxide.

Claim 18 (canceled):

Claim 19 (previously presented): Process as claimed in Claim 26, wherein a stack comprising at least one layer of another material is formed on a surface of the amorphous layer of hafnium oxide.

Claim 20 (previously presented): Process as claimed in Claim 19, wherein said another material comprises silicon oxide.

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Claim 21 (previously presented): Process as claimed in Claim 19, wherein the stack comprises alternate layers of amorphous hafnium oxide having a density less than 8 gm/cm³ and another material.

Claim 22 (previously presented): The process as claimed in Claim 21, wherein said another material comprises silicon oxide.

Claim 23 (previously presented): A process for forming an optical component which comprises vacuum depositing on a substrate at least one layer of amorphous hafnium oxide by the process of claim 26.

Claim 24 (previously presented): The process according to claim 23, wherein the at least one layer of hafnium oxide comprises amorphous hafnium oxide having a density less than 8 gm/cm³.

Claim 25 (previously presented): The process according to claim 24, wherein the optical component comprises a mirror.

Claim 26 (currently amended): A process for forming a layer of hafnium oxide on a substrate which comprises forming a vapor of hafnium by reactive evaporation of metallic hafnium, and condensing without ion bombardment the vapor on the substrate under oxygen, said process comprising a plurality of deposit periods interrupted by cooling periods, each cooling period lasting for a time equivalent to one or several times the preceding deposit period, whereby while maintaining the substrate at ambient temperature, to form an amorphous layer of hafnium oxide is formed on said substrate.

Claim 27 (previously presented): The process according to claim 26, wherein the substrate is at about 20°C.

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Claim 28 (previously presented): The process according to claim 26, wherein the process is conducted in a vacuum chamber.

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